Differential Differentiation in ophthalmology

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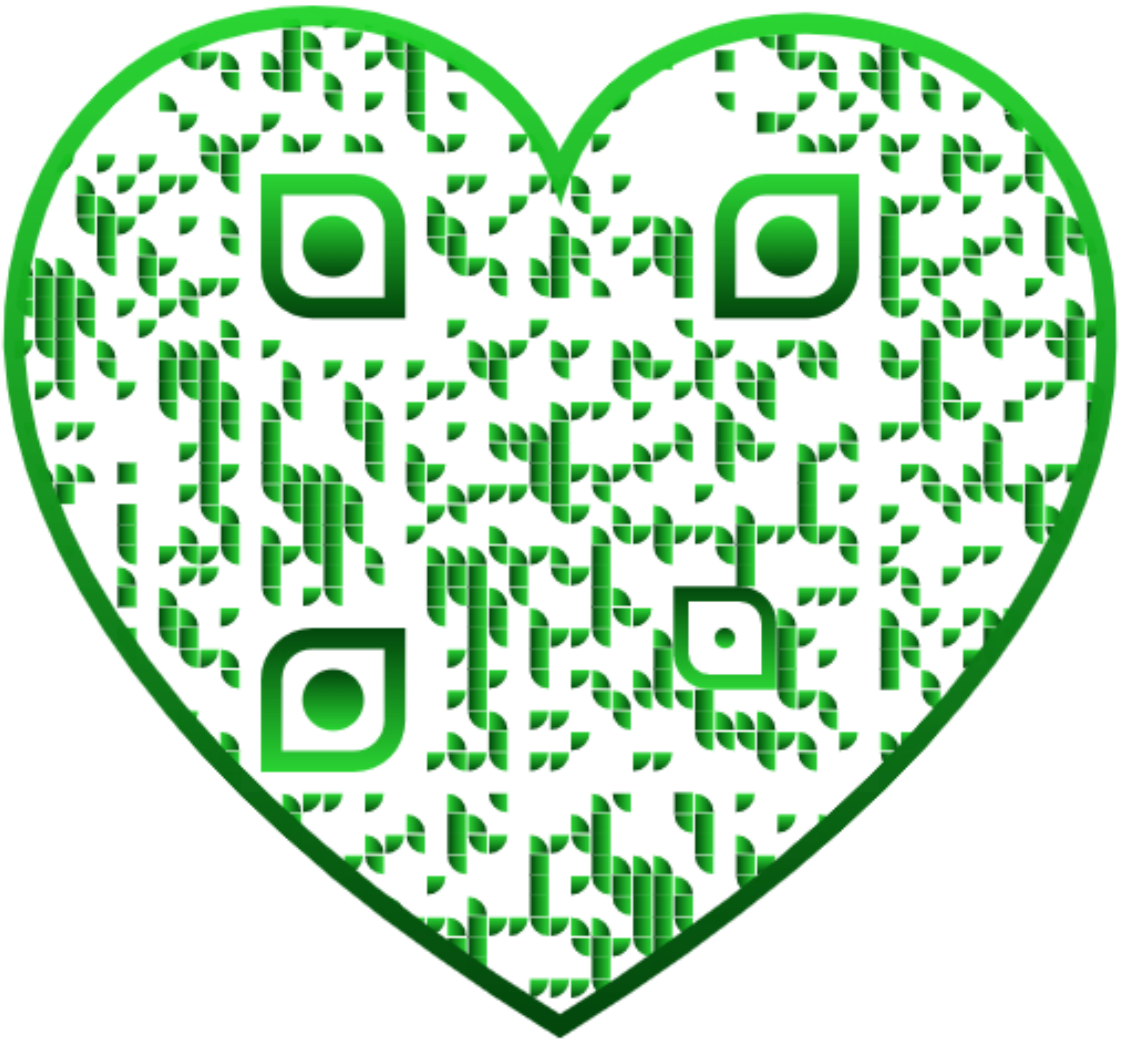

Differential Differentiation

D.D DEEP ANTERIOR CHAMBER.

1. Aphakia
2. Keratoconus
3. Hypermature cataract
4. Myopia
5. Buphthalmos
6. Keratoglobus
7. Posterior dislocation of lens
8. Total posterior synechiae
9. Anterior dislocation of lens

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D.D SHALLOW ANTERIOR CHAMBER.

1. Primary angle-closure glaucoma (PACG)
2. Hypermetropia
3. Wound Leakage
4. Corneal perforation
5. Intumescent lens
6. Cornea plana

D.D IRREGULAR DEPTH OF THE ANTERIOR CHAMBER

1. Subluxation of lens
2. Tumor of iris or ciliary body
3. Anterior synechiae & Posterior synechiae
4. Iris bombe
5. Adherent Leucoma

D.D IRIDODONESIS.

1. Posterior dislocation of lens
2. Aphakia
3. Hypermature cataract
4. Buphthalmos
5. Subluxation of lens
6. Iris wound

D.D IRREGULARITY OF PUPIL

1. Adherent Leucoma
2. Argyll-Robertson pupil
3. Congenital coloboma of the iris
4. Injury of the iris
5. Anterior synechiae & Posterior synechiae
6. Operation-as sector iridectomy
7. iris atrophy
8. Tumors of iris
9. Trauma

D.D LEUKOKORIA (WHITE PUPIL)

1. Cataract (congenital)
2. Coats disease
3. Coloboma of chorcid
4. Total retinal detachment
5. Ocular toxocariasis
6. Organized vitreous hemorrhage
7. Persistent hyperplastic primary vitreous
8. Retinoblastoma
9. Retinopathy of prematurity (ROP)
10. Toxoplasmosis

D.D ABNORMAL CONTENTS OF ANTERIOR CHAMBER

1. Blood (Hyphema)
2. Pus (Hypopyon)
3. Aqueous flare
4. Pseudohypopyon (retinoblastoma)
5. Foreign bodies
6. lens (anterior dislocation of lens)
7. Lens particles
8. Parasitic cyst
9. A/C IOL
10. Silicon oil (RD)(Inverted Hypopyon)
11. Gas bubbles

D.D GAS BUBBLES IN THE ANTERIOR CHAMBER

1. Clostridium perfringens
2. E. coli
3. (YAG) laser treatment to the anterior segment
4. Postoperative intraocular surgery

D.D HYPHEMA

1. Trauma
2. Metallic IOFB during MRI
3. Herpes Iridocyclitis
4. Blood abnormality (Scurvy, leukemia)
5. Rubeosis iridis
6. Vascularized tumors of iris
7. Retinoblastoma
8. Drug e.g. Aspirin

D.D HYPOPYON

1. keratitis
2. Chemical injury
3. Iridocyclitis(specially Behçet disease)
4. intraocular tumors (Retinoblastoma = Pseudohypopyon)
5. Retained IOFB
6. Endophthalmitis & Panophthalmitis
7. Laser iridotomy
8. Tuberculosis
9. Inverted hypopyon (Silicon oil)

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D.D CAUSES OF AXIAL PROPTOSIS

1. Greave's disease
2. Retrobulbar hemorrhage
3. Optic nerve tumor (Intra-conal mass)
4. Orbital cellulitis

D.D INTERMITTENT PROPTOSIS

1. Orbital varices
2. Mucocele
3. Capillary hemangioma
4. Lymphangioma

D.DPULSATING PROPTOSIS. IT IS CAUSED BY

1. Carotid-cavernousfistula
2. Ophthalmic artery aneurysm
3. Congenital meningo-encephalocele
4. Neurofibromatosis

D.D USES OF ROSE BANGAL STAIN

D.D USES OF FLUORESCEIN STAIN

1. Jone's test
2. Tear break up time test (TBUT)
3. Applanation tonometry
4. Siedel's test
5. Corneal ulcer (Base) & abrasion
6. Hard C.L
7. Fluorescein angiography

D.D USES OF LOCAL ANESTHESIA

1. Tonometry
2. Suture remove
3. Goniolens
4. Remove EOFB
5. Probing & dilatation
6. Chemical injury
7. TTT of band keratopathy

D.D USES OF PARACENTASIS

1. Hyphema
2. Hypopyon
3. CRAO
4. Keratocele

★ D.D UNIOCULAR DIPLOPIA

1. Subluxated lens
2. Polycoria
3. Cataract
4. Large peripheral iridoectomy
5. Iridodialysis

D.D BINOCULAR DIPLOPIA

1. Paralytic squint (4^{th}, 6^{th})(3^{rd} NO diplopia due to complete ptosis)
2. Myasthenia gravis
3. Pterygium
4. Symblepharon
5. Greave's disease
6. Blow-out fracture of floor of the orbit
7. Anisometropia
8. Orbital cellulitis
9. Psudotumor

★ D.D CAUSES OF WATERY EYE IN NEONATE (NEWBORN)

1. Congenital NLD obstruction
2. Congenital glaucoma
3. Ophthalmia neonatorum
4. – Keratitis

D.D MEDICATIONS CAUSE ELEVATED IOP

1. Ketamine
2. Nitrous oxide
3. Cycloplegic
4. Atropine
5. Corticosteroids
6. Alpha-chymotrypsin

D.D HYPOTONY

1. Trauma
2. Cyclitis
3. Cyclodialysis
4. medications (glaucoma drugs, Digoxin)
5. Myotonic dystrophy
6. Ocular ischemia
7. Choroidal detachment & Retinal detachment
8. Phthisis bulbi

D.D CAUSES OF BLUE SCLERA

1. Osteogenesis imperfect
2. Ehler-danlos syndrome
3. Turner syndrome
4. Marfan's syndrome
5. Scleral staphyloma
6. High myopia
7. Buphthalmous
8. Children & infant (physiological)

v.imp ★

D.D EYE REFLEX

1. Red REFLEX >>> Normal
2. White reflex (Leukocoria >>> D.D of Leukocoria)
3. Grey reflex >>> Retinal detachment → sub retinal fluid
4. Black reflex >>> Vitreous hemorrhage
5. Yellow reflex >>> Vitreous pus (endophthalmitis, Panophthalmitis)
6. Double red reflex >>> Polycoria, Iridodialysis, Peripheral iridoectomy
7. Ring red reflex >>> Nuclear cataract

D.D LIMBAL MASS

1. Phlyctenules
2. Vernal limbal lesions
3. Associated with skin disease(Acne rosacea, Psoriasis)
4. Dermoid
5. Ectopic lacrimal gland tissue
6. Hemangioma
7. Malignant melanomas
8. Nevi
9. Papilloma
10. Pterygium
11. Squamous cell carcinoma

D.D NARROW PALPEBRAL FISSURE.

1. Oedema of lids
2. Ptosis
3. Enophthalmos
4. Anophthalmos
5. Microphthalmos
6. Phthisis bulbi

D.D WIDE PALPEBRAL APERTURE.

1. Proptosis
2. Buphthalmos
3. Upper lid retraction

D.D DECREASED CORNEAL SENSATIONS.

1. Herpes simplex keratitis
2. Herpes zoster ophthalmicus
3. DM
4. Leprosy
5. Absolute glaucoma
6. Trigeminal dysfunction
7. Long use of contact lens

✶ D.D MARCUS GUNN PUPIL (RAPD)

1. Optic neuritis
2. Retinal detachment RD
3. Central retinal artery occlusion CRAO
4. Central retinal vein occlusion CRVO

D.D COMMON CAUSES OF REDNESS OF EYES.

1. Conjunctivitis
2. Keratitis
3. Iridocyclitis
4. Acute congestive glaucoma
5. Subconjunctival hemorrhage
6. Endophthalmitis&Panophthalmitis
7. Scleritis & Episcleritis
8. Ocular injuries
9. Orbital cellulitis

★D.D CILIARY CONGESTION.

1. Acute congestive glaucoma
2. Keratitis
3. Acute Iridocyclitis

D.D OF TUBULAR VISION.

1. Advanced stage of POAG
2. Advanced stage of retinitis pigmentosa
3. CRAO with normal cilioretinal artery
4. Pan-retinal photocoagulation

★ D.D ENLARGMENT OF BLIND SPOT

1. POAG
2. Papilledema

★ D.D RING SCOTOMA.

1. POAG
2. Retinitis pigmentosa

D.D BITEMPORAL HEMIANOPIA

1. Pituitary tumours (common)
2. Craniopharyngioma
3. Glioma of third ventricle
4. Meningiomas

D.D SUDDEN PAINLESS LOSS OF VISION

1. CRAO
2. Massive vitreous haemorrhage
3. Retinal detachment involving macular area
4. Methanol poison
5. IschacmicCRVO

D.D SUDDEN PAINFUL LOSS OF VISION

1. Acute congestive glaucoma
2. Acute iridocyclitis
3. Chemical injuries to the eyeball
4. Optic neuritis

D.D GRADUAL PAINLESS DEFECTIVE VISION

1. Senile cataract
2. Diabetic retinopathy
3. POAG
4. Papilledema
5. High myopia
6. Retinitis pigmentosa
7. Progressive pterygium involving pupillary area
8. Age-related macular degeneration
9. Refractive errors

★D.D GRADUAL PAINFUL DEFECTIVE VISION

1. Chronic iridocyclitis

D.D TRANSIENT LOSS OF VISION (AMAUROSIS FUGAX)

1. Carotid artery obstructive disease
2. Papilloedema
3. Giant cell arteritis
4. Migraine
5. Severe hypertension
6. CRAO
7. TIA (Transient Ischemic attack)

D.D NIGHT BLINDNESS (NYCTALOPIA)

1. Vitamin A deficiency
2. Retinitis pigmentosa
3. Congenital night blindness
4. High myopia
5. Peripheral cortical cataract
6. Pan-retinal photocoagulation
7. POAG

DAY BLINDNESS (HAMARLOPIA)

1. Central nuclear cataracts
2. Central corneal opacity
3. Central vitreous opacity
4. Congenital deficiency of cones (rarely)

D.D DIMINUTION OF VISION FOR NEAR ONLY

1. Presbyopia
2. Cycloplegia
3. POAG
4. Anemia

D.D CHERRY-RED SPOT IN MACULA

1. Commotio retinae (Berlin edema)
2. CRAO
3. Cardiac myxomas
4. Dapsone & Quinine poisoning
5. Temporal arteritis (giant cell arteritis)
6. Hypertension (severe)
7. Leber congenital amaurosis
8. Tay-Sachs disease
9. Amaurotic family idiocy.

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D.D HARD EXUDATES

1. Diabetes mellitus
2. Circinate retinopathy
3. Coats disease (retinal telangiectasia)
4. Exudative age-related macular degeneration
5. Hypertensive disease
6. Radiation induced
7. Retinal arterial macroaneurysm

D.D COTTON-WOOL SPOTS

1. Severe systemic blood loss
2. Blood disease
3. Aplastic anemia
4. Ischemic CRVO
5. Multiple myeloma (myelomatosis)
6. Pernicious anemia (vitamin B12 deficiency)
7. Carbon monoxide poisoning
8. Diabetic retinopathy
9. HIV
10. Pneumonia
11. Primary open-angle glaucoma
12. Toxemic retinopathy of pregnancy
13. Untreated malignant hypertension

D.D CAUSES OF PHOTOPSIA

1. Posterior vitreous detachment
2. Retinal detachment & Break
3. Retinitis
4. Posterior uveitis
5. Vitreous traction band (Cyclitic membrane)

CONJUNCTIVAL DISCHARGE

1. Watery discharge is typical of viral inflammations.
2. Mucoid discharge is typical of vernal conjunctivitis
3. Purulent discharge occurs in severe acute bacterial infections.
4. Mucopurulent discharge occurs in mild bacterial as well as chlamydial infections.

FOLLICULAR CONJUNCTIVAL REACTION

1. Viral infections
2. Chlamydial infections
3. Hypersensitivity to topical medication.

PAPILLARY CONJUNCTIVAL REACTION

1. Chronic blepharitis
2. Vernal disease
3. Bacterial infection
4. Gaint papillary conjunctivitis
5. Superior limbic keratoconjunctivitis.

D.D HETEROCHROMIA

1- Congenital
2- Horner's syndrome
3- Fuch'sheterochromic Cyclitic
4- Unilateral use of topical latanoprost
5- Iris naevus or melanoma
6- Sturge-weber syndrome
7- Oculodermalmelanocytosis (naevus of Ota)
8- Ocular siderosis

D.D CAUSES OF LID RETRACTION

1. Congenital
2. Thyroid eye disease
3. Uremia
4. Marcus Gunn syndrome
5. Over correction of ptosis
6. Globe (Myopia, Buphthalmos, Proptosis)

D.D PSEUDOPTOSIS

1. Ipsilateral :- Enophthalmous, Shrunken eye, Dermatochalasis
2. Contra-lateral :- Exophthalmos, lid retraction

D.D PSEUDO-PROPTOSIS

1. Ipsilateral enlargement of the globe (high myopia or Buphthalmous)
2. Ipsilateral lid retraction
3. Contralateral Enophthalmous

D.D OF RED EYE

FEATURE	CONJUNCTIVITIS	ACUTE IRIDOCYCLITIS	ACUTE CONGESTIVE GLAUCOMA	KERATITIS	SUBCONJUNCTIVAL HG
PAIN	Mild	Moderate	Sever	Moderate	NO or Mild
DISCHARGE	Purulent	Watery	Watery	Purulent	NO
VISION	Good	V/A Decreased	V/A decreased	V/A decreased	Good
CONGESTION	Conjunctival injection	Ciliary injection	Ciliary injection	Ciliary injection	Diffuse homogen red opacity
PUPIL	Normal	Miosis & irregular	Mid-dilated oval pupil nonreactive	Normal or Miosis	Normal
CORNEA	Clear	Hazy & KP	Hazy	Hazy	Normal
A/C	Normal	Aqueous flare & cells	Shallow	Normal	Normal
IOP	Normal	High	High	Normal or high	Normal
FLU. STAIN	Negative	Negative	Negative	Positive	Negative

لاتنسونا من صالح الدعاء
د. معز شلفيط
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